

Report of Test

LLIA000901-036

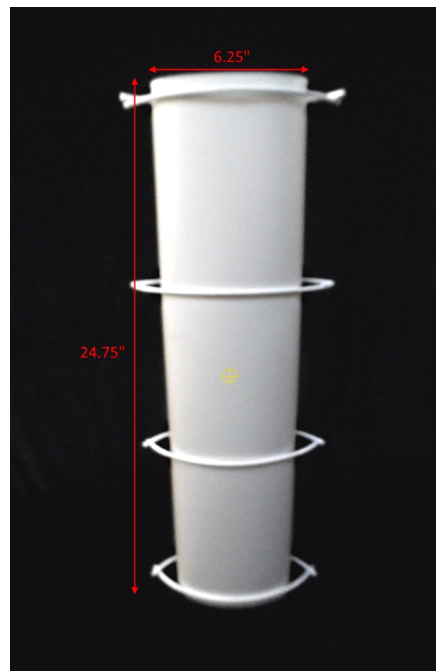
Catalog Number: WCH200/F11/D61/L406

Wall mounted, formed white enamel aluminum housing, formed steel frame with white "lumenate" diffuser, external white steel decorative grille, no enclosure.

96 white LEDs, two Samsung Electronics LT-M562C G2 3000K-S49 LED boards with 48 LEDs each.

One Philips Advance Xitanium XI054C150V054BST1 LED driver.

120.0Vac, 60.00Hz, 0.3311A, 38.81W, 0.977PF, 8.1%THD(i)



Performance Summary

Total Light Output	2882 lm
Luminaire Power	38.8 W
Luminous Efficacy	74.3 lm/W

PREPARED FOR : Lumetta, Inc, 33 Minnesota Avenue, Warwick, RI 02888, USA



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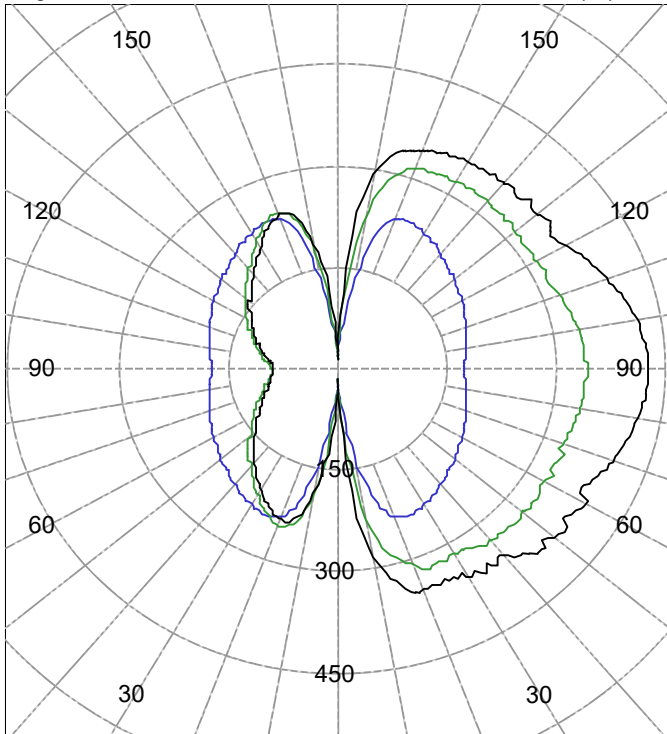
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Legend: C0/C180-Black, C45/C225-Green, C90/C270-Blue (cd)



C180-C270 (Symmetric about C0/C180) C0-C90

AVERAGE LUMINANCE (cd/m²)

Gamma	C0	C45	C90
45.0	4649	3548	3755
55.0	4158	3171	3254
65.0	3955	2934	2950
75.0	4055	2850	2776
85.0	4187	2892	2681

INTENSITY SUMMARY (cd)

Gamma	C-Plane					Flux (lm)
	C0	C22.5	C45	C67.5	C90	
0.0	16	16	16	16	16	
5.0	138	128	98	63	51	12
10.0	283	274	226	144	130	
15.0	333	322	286	207	204	70
20.0	348	339	310	234	233	
25.0	343	338	318	245	237	122
30.0	353	347	316	254	233	
35.0	352	356	321	261	228	160
40.0	362	359	330	261	221	
45.0	382	367	332	259	214	189
50.0	384	377	329	258	208	
55.0	379	374	331	260	201	208
60.0	393	364	329	260	196	
65.0	386	366	329	259	192	220
70.0	399	377	326	257	188	
75.0	409	386	332	253	184	228
80.0	417	393	335	253	179	
85.0	423	398	339	253	175	232
90.0	425	400	339	251	173	

ZONAL FLUX AND PERCENTAGES

Zone	Flux (lm)	% Lamp	% Luminaire
0-30	204	N / A	7.1
0-40	364	N / A	12.6
0-60	762	N / A	26.4
0-90	1441	N / A	50.0
40-90	1077	N / A	37.4
60-90	680	N / A	23.6
90-180	1441	N / A	50.0
0-180	2882	N / A	100.0

Total Light Output = 2,882 lm

Signed:

Authorized Signatory

Date of test

2-Feb-2018

Date of report

7-Feb-2018



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Intensity data (cd)

Gamma	C-Plane				
	C0	C22.5	C45	C67.5	C90
0.0	16	16	16	16	16
2.5	52	48	40	30	28
5.0	138	128	98	63	51
7.5	237	221	166	104	87
10.0	283	274	226	144	130
12.5	312	304	265	180	172
15.0	333	322	286	207	204
17.5	341	336	299	223	223
20.0	348	339	310	234	233
22.5	348	342	317	241	236
25.0	343	338	318	245	237
27.5	349	343	317	250	236
30.0	353	347	316	254	233
32.5	355	349	317	257	231
35.0	352	356	321	261	228
37.5	365	355	326	263	224
40.0	362	359	330	261	221
42.5	369	365	327	259	217
45.0	382	367	332	259	214
47.5	377	365	334	259	210
50.0	384	377	329	258	208
52.5	394	364	336	260	205
55.0	379	374	331	260	201
57.5	389	375	328	262	199
60.0	393	364	329	260	196
62.5	378	372	331	260	194
65.0	386	366	329	259	192
67.5	393	372	333	258	190
70.0	399	377	326	257	188
72.5	404	382	329	254	186
75.0	409	386	332	253	184
77.5	413	389	334	253	182
80.0	417	393	335	253	179
82.5	421	396	337	253	177
85.0	423	398	339	253	175
87.5	425	399	339	252	173
90.0	425	400	339	251	173



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Intensity data (cd)

Gamma	C-Plane				
	C0	C22.5	C45	C67.5	C90
90.0	425	400	339	251	173
92.5	424	399	338	251	173
95.0	422	397	337	251	175
97.5	419	394	336	252	177
100.0	415	391	333	251	179
102.5	410	386	330	251	181
105.0	404	381	327	250	183
107.5	397	375	324	249	185
110.0	391	370	320	248	187
112.5	385	364	317	252	189
115.0	378	359	313	251	191
117.5	371	352	319	254	194
120.0	363	345	313	253	196
122.5	354	348	317	255	198
125.0	356	343	312	256	201
127.5	363	344	315	256	204
130.0	352	350	313	257	207
132.5	359	345	318	254	210
135.0	354	349	319	257	213
137.5	355	347	317	258	216
140.0	352	347	319	258	220
142.5	358	351	321	259	223
145.0	355	348	324	258	227
147.5	353	347	320	258	230
150.0	352	347	319	256	233
152.5	350	344	318	254	236
155.0	350	343	317	251	238
157.5	345	341	316	247	239
160.0	342	339	313	242	236
162.5	341	335	308	231	228
165.0	333	328	294	217	211
167.5	317	312	271	191	177
170.0	290	282	237	153	135
172.5	246	233	178	111	92
175.0	151	140	108	69	53
177.5	61	57	48	35	29
180.0	16	16	16	16	16



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Intensity data (cd)

Gamma	C-Plane				
	C90	C112.5	C135	C157.5	C180
0.0	16	16	16	16	16
2.5	28	33	39	44	46
5.0	51	61	80	95	101
7.5	87	104	141	147	152
10.0	130	151	185	183	188
12.5	172	194	220	210	214
15.0	204	227	237	227	230
17.5	223	244	244	233	236
20.0	233	249	246	231	235
22.5	236	249	241	225	231
25.0	237	246	232	217	224
27.5	236	239	226	209	217
30.0	233	233	218	200	208
32.5	231	226	210	191	200
35.0	228	220	201	182	193
37.5	224	213	194	174	185
40.0	221	207	186	166	177
42.5	217	201	178	157	170
45.0	214	195	171	148	161
47.5	210	189	164	140	154
50.0	208	183	157	132	147
52.5	205	178	150	125	141
55.0	201	173	144	118	135
57.5	199	168	138	111	129
60.0	196	164	132	105	124
62.5	194	159	126	99	118
65.0	192	155	122	94	114
67.5	190	151	117	88	110
70.0	188	146	112	83	105
72.5	186	142	107	78	102
75.0	184	139	103	74	99
77.5	182	135	99	70	96
80.0	179	131	96	66	93
82.5	177	129	93	63	91
85.0	175	127	91	61	90
87.5	173	125	89	59	88
90.0	173	126	90	60	87



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Intensity data (cd)

Gamma	C-Plane				
	C90	C112.5	C135	C157.5	C180
90.0	173	126	90	60	87
92.5	173	127	93	63	88
95.0	175	130	97	66	91
97.5	177	133	101	71	95
100.0	179	136	105	75	100
102.5	181	139	109	80	104
105.0	183	143	113	85	108
107.5	185	146	118	90	113
110.0	187	150	122	95	117
112.5	189	154	127	101	122
115.0	191	158	133	106	127
117.5	194	162	137	112	132
120.0	196	167	143	118	136
122.5	198	172	148	124	141
125.0	201	177	153	130	147
127.5	204	181	159	136	152
130.0	207	186	165	143	157
132.5	210	192	171	149	163
135.0	213	197	177	156	168
137.5	216	203	183	163	174
140.0	220	209	189	170	180
142.5	223	215	197	178	186
145.0	227	221	204	186	194
147.5	230	229	212	195	201
150.0	233	235	220	204	210
152.5	236	242	228	213	219
155.0	238	249	235	224	228
157.5	239	256	242	236	235
160.0	236	257	244	244	240
162.5	228	252	242	246	242
165.0	211	232	232	234	234
167.5	177	198	209	207	214
170.0	135	151	176	180	188
172.5	92	101	130	144	150
175.0	53	56	72	85	91
177.5	29	29	33	37	38
180.0	16	16	16	16	16



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Coefficients Of Utilization - Zonal Cavity Method																		
Effective Floor Cavity Reflectance 0.20																		
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	94	88	83	78	86	81	76	72	67	64	60	55	52	50	44	42	40	34
2	84	75	67	61	77	69	62	56	57	52	47	46	42	39	36	33	31	26
3	76	65	56	49	69	59	51	45	49	43	38	40	35	31	31	28	25	20
4	69	56	47	40	63	52	44	37	43	37	31	35	30	26	27	23	20	16
5	63	50	41	34	57	46	37	31	38	31	26	31	26	22	24	20	17	14
6	58	44	35	29	52	41	33	27	34	27	23	27	22	19	21	18	15	11
7	53	40	31	25	48	36	29	23	30	24	20	25	20	16	19	16	13	10
8	49	36	27	22	45	33	25	20	28	21	17	22	18	14	18	14	11	9
9	46	32	24	19	42	30	23	18	25	19	15	21	16	12	16	13	10	8
10	43	30	22	17	39	27	20	16	23	17	13	19	14	11	15	11	9	7

For absolute test reports, CUs are expressed as a percentage of total lumen output. Calculations were based on published IES procedures, and are based on the zonal cavity method. Basic assumptions: 1) Room surfaces are lambertian reflectors. 2) Incident flux on each surface is uniformly distributed. 3) The room is spectrally neutral. When luminaires are not evenly distributed throughout the room, or do not exhibit lateral symmetry, CU values may differ from actual performance.

Height(ft)	Illuminance at Nadir (fc)	Beam Width (across 50% Nadir Illum)	
		0-180	90-270
6.0	0.5	34.30	31.92
8.0	0.3	45.73	42.56
10.0	0.2	57.16	53.20
12.0	0.1	68.60	63.84
14.0	0.1	80.03	74.48
16.0	0.1	91.46	85.12



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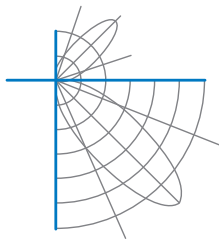
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Test Distance 9.5 m
Test Temperature 25.4 °C

Notes

The laboratory has not participated in the selection of samples to be tested. All testing is performed on the understanding that the significance of the report is limited to the extent that the test sample is representative of production units.

Tested in accordance with the applicable sections of publications: IES LM-79-08 (Sec. 12), IES LM-16-93, IES LM-58-13, CIE 13.3:1995, CIE 15:2004, ANSI C78.377:2015, ANSI C82.77-10:2014.

The luminous intensity values, and other derived quantities, contained in this report are based on the absolute data, as measured.

Prorating the performance of the sample for the use of other component combinations (such as lamp / LED / Ballast / driver), or for use in different environmental conditions than that tested, may produce erroneous results.

This report is free of erasures and corrections.

Photometric intensity values are reported using the CIE Gamma coordinate system as defined in CIE publication number 121.

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